

ABSTRACT

The power supply (20) for LEDs provides power to a LED light source (10) having a
5 variable number of LEDs wired in series and/or in parallel. The power supply (20) uses
current and voltage feedback to adjust power to the LEDs and provides protection to the LED
light source (10). A feedback controller (27) compares sensed current and sensed voltage to a
reference signal and generates a feedback signal, which is processed by a power factor
corrector (124) to adjust the current flow through the transformer supplying current to the
10 LEDs. A LED control switch (24) clamps a peak of the current to the LEDs to provide
further protection to the LED light source (10). A short/open detection circuit (30) indicates
any detection of a "LED outage" of the LED light source (10).